The Puzzle of Altruism -

Why Do Selfish Genes Behave so Unselfishly?

Abstract: There are sound evolutionary and philosophical reasons for believing that human beings have a powerful innate disposition towards pure altruism - an altruism that is not a form of disguised selfishness, a survival strategy, or limited to those with whom we are closely genetically related. An overview of archaeological and anthropologic evidence suggests that the so-called 'environment of evolutionary adaptedness' was very different to the brutal, competitive struggle typically depicted by evolutionary psychologists. It is false to assume that competitiveness and selfishness are fundamental human traits. An alternative view that altruism and co-operation are fundamental traits could more justifiably be drawn from archaeological and anthropological evidence. The philosophy of 'panspiritism' suggests that pure altruism is the result of the human capacity for empathy, which itself is the result of our fundamental interconnectedness.

Keywords: altruism, selfishness, evolutionary psychology, warfare, consciousness, egalitarianism, bonobos.

On May 22rd 2017, my home city of Manchester, UK. suffered a terrorist attack. Waiting in the foyer at the end of a concert by Ariana Grande, a 22 year old man detonated a bomb strapped to his chest, killing twenty two people (including himself) and injuring over 500. Most of the victims were either children or parents waiting to collect their children. However, in the midst of the senseless savagery of the attack, there were many stories of heroism and selflessness.

An off duty doctor who was walking away from the concert after picking his daughter up ran back into the foyer to help the victims. A woman who saw crowds of confused and frightened teenagers running out of the venue guided around fifty of them to the safety of a nearby hotel. There she shared her phone number on social media so that parents could come and pick their children up. Taxi drivers across the city switched off their meters and took concertgoers and other members of the public home. Taxi drivers from as far as 30 miles away converged on the city to offer free transport. A homeless person named Stephen Jones was sleeping rough near the venue and rushed in to help. He found many children covered with blood, screaming and crying. He and a friend pulled nails out of the children's arms - and in one case, out of a child's face - and helped a woman who was bleeding severely by holding her legs in the air. "It was just my instinct to go and help people out," he said. (Although - to illustrate the negative side of human nature - another homeless man was convicted of stealing the belongings of injured victims of the attack.) As one paramedic - named Dan Smith - who was at the scene commented, "There was an unbelievable amount of people doing what they could to help…I saw people putting together in a way I have never seen before….The thing I will remember more than any other is the humanity that was on display. People were

catching each other's eye, asking if they were okay, touching shoulders, looking out for one another."

Such acts of altruism are almost always a feature of emergency situations. Also in the UK, in 2016, a cyclist was trapped under the wheel of a double decker bus. A crowd of around 100 people gathered together, and in an amazing act of co-ordinated altruism, lifted the bus so that the man could be freed. According to a paramedic who treated the man, this was a 'miracle' which saved his life. Another example took place in Glasgow, in November 2013, when a helicopter crashed into a pub, killing ten people. Soon after the crash, residents and passers-by rushed towards the scene. Together with some of the pub's clientele, they formed a human chain, passing wounded and unconscious victims inch by inch, out of the danger area and into the hands of the emergency services.

As the examples above show, altruism and cooperation are innate to human beings. The fact that, in crisis situations, people respond in an altruistic way so spontaneously, without any conscious deliberation, attests to how innate these impulses are. Although human beings are capable of extreme selfishness and cruelty, we can also be extraordinarily kind and selfless.

The theories of Neo-Darwinism and evolutionary psychology portray human beings as ruthless genetic machines, only concerned with survival and reproduction. But if this is true, why do often behave so unselfishly? I will suggest that there are both sound evolutionary and philosophical reasons for believing that human beings have a powerful innate disposition towards pure altruism - an altruism that is not a form of disguised selfishness, a survival strategy, or limited to those with whom we are closely genetically related. I will suggest that pure altruism is rooted in our fundamental interconnectedness - in contrast to the fundamental separateness which is envisaged by evolutionary psychologists and Neo-Darwinists.

The Myth of Prehistoric Hardship

The idea that human beings are innately selfish is based on the idea that life is fundamentally a struggle for survival. According to the standard neo-Darwinist narrative, selfishness and ruthlessness have flourished because we have always had to compete for limited resources. Altruism would have not have benefitted us at all; it would have meant giving away access to resources that we need for our own survival. But selfishness would have increased our chances of survival, and so it would have been 'selected' by evolution as a trait, and so passed down to future generations (1).

This applies to both individuals and groups. As individuals within groups, men ruthlessly sought wealth and power so that they could ensure their own survival and become more attractive to the opposite sex, and so propagate their genes as widely as possible. And at a group level, tribes competed against each other for resources. Other tribes were a potential threat to their survival, because they might use up the resources they needed, and so it was inevitable they were hostile towards them (2). Some evolutionary psychologists see this as the origin of racism, and the beginning of warfare. After all, altruism towards another group would have decreased a group's own chances of survival. On the contrary, it was beneficial to deprive other groups of resources and power in order to increase our own access to them. In the words of Pascal Boyer, for example, racism is "a consequence of highly efficient economic strategies," enabling us to "keep members of other groups in a lower-status position, with distinctly worse benefits." (3) And in terms of warfare, there would have been conflict between different groups who were dependent on the same land for food and water.

But this is a crude caricature of prehistoric human life. Our culture is underpinned by a neo-colonialist progressivist narrative, leading us to believe that human history has been a gradual movement from a primitive to a more civilised state, with gradually improving health, diet and social conditions and decreasing savagery and brutality. However, this view is contrary to anthropological and archaeological evidence.

It is important to remember that in the prehistoric era, the world was very sparsely populated. As a result, it is likely that there was an an abundance of resources for hunter-gatherer groups. According to some estimates, around 15,000 years ago, the population of Europe was only 29,000, and the population of the whole world was no more than half a million (4). With such small population densities, it seems unlikely that prehistoric hunter-gatherer groups had to compete against each other for access to resources, or had any need to develop ruthlessness and competitiveness or to go to war.

It is also highly unlikely that groups ever became so large that they would exhaust the resources of a particular area, since they moved sites regularly - usually every few months - and experienced very little population growth. (They may have exhausted the resources of *small local areas* - thus necessitating a move - but not of the wider region.) The world's population grew exceedingly slowly throughout prehistory - by well below .001 percent per year, according to one estimate (5). Before the emergence of agriculture, it is likely that it took tens of thousands of years for the world's population to double. Anthropologists have puzzled over this lack of population growth, but suggested reasons include longer periods of breast-feeding (up to the age of 5 or 6, resulting in extended periods of infertility), and the use of plant contraceptives. Certainly, a small number of children would suit the mobile hunter-gatherer lifestyle, since larger numbers would have been difficult to transport to new sites. The idea of life as a competition for limited resources only has validity in relation to a settled, agricultural lifestyle. It has no meaning in terms of the mobile hunter-gatherer lifestyle our species followed for the great majority of our time on this planet.

There are other ways in which prehistoric life was relatively easy too. Hunter-gatherers had a good diet - one that was arguably better than many modern peoples', with no dairy products and a wide variety of fruits, vegetables, roots and nuts, all eaten raw, as well as meat. (6) This partly explains why skeletons of ancient hunter-gatherers are typically large and robust, and show few signs of degenerative diseases and tooth decay. Studies of skeletons

have shown, for example, that the hunter-gatherers of prehistoric Greece and Turkey had an average height of five feet ten inches for men and five feet six for women. But after the advent of agriculture, these declined to five feet three and five feet one respectively (7). Research from many different areas shows that the adoption of farming brought about a deterioration in terms of body size and stature, general health and life expectancy (8).

Prehistoric hunter-gatherers were also much less vulnerable to disease than later peoples In fact, until the advances of modern medicine and hygiene of the 19th and 20th centuries, they may well have suffered less from disease than any other human beings in history. Many of the common diseases that afflict present day human beings were passed on to us by animals we domesticated (9). In a review of the relationship between agriculture and human disease, the United Nations' Food and Agriculture Organisation found that almost three-quarters of human diseases originate in animals (10). Pigs and ducks passed the flu on to us, horses gave us colds, cows gave us the pox and dogs gave us the measles.

In view of this, it is not surprising that with the development of agriculture, people's lifespans became shorter. In fact, a good deal of research suggests that the health of prehistoric hunter-gatherers was superior to most modern human beings, with lower blood pressure, good insulin sensitivity, lower body mass index, and better bone health (11). In a study of contemporary hunter-gatherer groups, Gurven and Kaplan have found a longevity not far below that of the world's most affluent industrialised countries. As they summarised, "modal adult life span is 68-78 years, and it was not uncommon for individuals to reach these stages" (12).

In other words, the idea of human life as a competition for limited resources, and as a general struggle for survival, has little meaning in terms of the mobile hunter-gatherer lifestyle our species followed for the great majority of our time on this planet. And so the idea that human beings are innately selfish and competitive is predicated on a false narrative, and is therefore itself a fallacy. In reality, life only became a struggle in relatively recent times,

when our ancestors settled down and took up farming. That was when resources became more scarce (partly due to increased population densities). And that was also when we were obliged to work much harder to attain food, when we become more susceptible to illness, and when our diet deteriorated. This is why agriculture has been regarded as - in the words of Jared Diamond - "the worst mistake in the history of the human race."(13)

Prehistoric Egalitarianism

If anything, judging from the way that our ancestors actually did live, altruism and cooperation should be much more innate to us than competition and aggression. Anthropological reports of hunger-gatherer groups who live the same "immediate return" way of life as our ancestors - meaning that they consume their food almost straight away, without storing surpluses - have typically shown them to be extremely egalitarian and democratic. Most groups do not have leaders or hierarchies, and reach decisions by consensus. They do not horde goods or collect possessions, and have very strongly developed practices of sharing The anthropologist James Woodburn has spoken of the "profound egalitarianism" of hunter-gatherer groups, describing how they "are not entitled to accumulate movable property beyond what they need for their immediate use. They are morally obliged to share it" (14). An example is the Hazda of Africa, who never own an "unnecessary" possession – such as a second axe or a second shirt – for more than a few days, and usually not more than a few hours. Their "moral obligation to share" makes them give it away almost immediately.

At the same time, some nomadic hunter-gatherer groups have methods of preserving egalitarianism by ensuring that status differences do not arise. This is done by sharing credit and putting down or ridiculing anybody who becomes too boastful. The !Kung of Africa swop arrows before going hunting, and when an animal is killed, the credit does not go to the person who fired the arrow, but to the person whom the arrow belongs to. If a person becomes

too domineering or too arrogant the other members of their group gang up against them, or ostracise them. In the words of another anthropologist, Christopher Boehm, "This egalitarian approach seems to be universal for foragers who live in small bands that remain nomadic, suggesting considerable antiquity for political egalitarianism" (15).

There have been attempts to explain the patriarchy or male domination of contemporary human societies in adaptationist terms. Wrangham and Peterson have claimed, for example, that "Males have evolved to possess strong appetites for power because with extraordinary power males can achieve extraordinary reproduction" (16). Women's desire for power is inevitably weaker because, for them, more power does not bring more reproductive possibilities – since, after all, the best they can do to replicate their genes is to have a baby every year or so.

However, this explanation also makes little sense in terms of hunter-gatherer groups, where there is a striking absence of both sexual inequality and competition for power. As the anthropologist Knauft has remarked, hunter gatherer groups are characterised by "extreme political and sexual egalitarianism" (17). Or as Tim Ingold has noted, in immediate return hunter-gatherer groups, men have no authority over women (18). Women usually choose their own marriage partners, decide what work they want to do and work whenever they choose to, and if a marriage breaks down they have custody rights over their children. Other recent research on contemporary hunter-gatherer groups has shown that men and women tend to have equal status and influence, leading to the suggestion that sexual inequality only began to emerge with the development of agriculture (19).

It is perhaps significant here that, in economic terms, the role of women in hunter-gatherer groups is just as important (and often *more* important) than the role of men. It is common for women to provide the majority of a group's food, through gathering (a fact which has led to the suggestion that the groups should be renamed "gatherer-hunters"). Studies of Australian Aboriginal communities have found that there are frequent periods where

most of a group's food stems from roots, fruits and seeds foraged by women, rather than from meat hunted by men (20). Indeed, in some circumstances, men provided less than 10% of a group's food (21).

The Myth of Prehistoric Warfare

Both the progressivist narrative and the evolutionary psychological narrative of innate human selfishness (which are of course closely intertwined) tell us that early human beings lived in a constant state of warfare, which has continued through recorded history and only began to decrease in recent decades. According to one of the founding theorists of evolutionary psychology, E. O. Wilson (22), warfare is a "hereditary curse" of the human race, while Steven Pinker has suggested that "chronic raiding and feuding characterise life in a state of nature" (23). But this is far from what the evidence suggests.

In recent years, the notion of "prehistoric peace" idea has gained more evidence and support, and hence become much more widely accepted amongst anthropologists and archaeologists. Even an orthodox evolutionary psychologist such as David Barash has chastised Wilson and Pinker for their simplistic views on prehistoric warfare, stating that "a strong case can and has been made that nomadic forager social systems in particular predispose against violent interpersonal competition" (24). The anthropologists Haas and Piscitelli surveyed descriptions of 2900 prehistoric human skeletons from scientific literature, and apart from a single massacre site in Sudan (in which two dozen people were killed), there were only four skeletons that showed signs of violence - and even these signs were consistent with homicide rather than warfare. This dearth of violence completely contrasts with later periods when signs of war become obvious from skeletal marks, weapons, artwork, defensive sites and architecture. As Haas and Piscitelli have written, "The presumed universality of warfare in human

history and ancestry may be satisfying to popular sentiment; however, such universality lacks empirical support" (25).

Another anthropologist. Bryan Ferguson, has carried out a detailed survey of Neolithic Europe and the near East, and found almost no evidence of warfare. He has found that warfare only became common in these areas around 3500 BCE. In the Levant - an area which includes present day Jordan, Syria, Israel and Palestine - there was also no sign of warfare until 3500 BCE, even though the area had been densely populated and farmed since 9000 BCE. As Ferguson has summarised, "By considering the total archaeological record of prehistoric populations of Europe and the Near East up to the Bronze Age, evidence clearly demonstrates that war began sporadically out of a warless condition, and can be seen, in varying trajectories in different areas, to develop over time as societies became larger, more sedentary, more complex, more bounded, more hierarchical" (26).

Even modern day nomadic hunter-gatherers are generally not territorial – that is, they do not think of a particular area of land as belonging to them and them alone, and do not aggressively resist anybody who encroaches on it. As the anthropologists Burch and Ellanna have put it, "both social and spatial boundaries among hunter-gatherers are extremely flexible with regard to membership and geographic extent" (27). Rather than being in conflict, hunter-gatherer groups interact with each other a good deal. They regularly visit each other, make marriage alliances, and often switch membership. A recent study of 21 contemporary hunter-gatherer groups by the anthropologists Fry and Söderberg showed a striking lack of evidence for inter-group conflict over the last hundred years. There was only one society (an Australian Aboriginal group called the Tiwi) who had a history of group killings. (28)

It is important to distinguish between simple and complex hunter-gatherer groups. Simple hunter-gatherer groups are those who live an "immediate return" way of life, immediately. using any food or other resources they collect, rather than storing them for later use. They live in small, egalitarian mobile groups with few possessions. As I have described above,

there is often a lot of cooperation between different groups, and such groups are generally peaceful. And it is in such societies that human beings have lived for the vast majority of our time on this planet. (As Ferguson puts it, "Simple hunting and gathering characterized human societies during most of humanity's existence dating back more than 200,000 years" [29]). On the other hand, complex hunter-gatherer groups tend to stay in the same site, and have larger populations, with social ranking, ancestral privileges, and more authoritarian and less democratic power structures. They are also war-like. These complex hunter-gatherer groups are a much more recent historical development, but are sometimes misrepresented as providing proof of the ubiquity of warfare in human history (30).

In other words, the evidence strongly suggests that warfare is not innate, and only became prevalent at a late stage. Thus there is no evidence that the tendency for group conflict was selected as an evolutionary adaptive trait. And in view of the low population densities during prehistory, we have every right to ask: why *should* group conflict have been selected as an adaptive trait? What would have been the necessity for it, in a world without scarcity? As Haas and Piscitelli have put it, "For 190,000 years of human existence on the planet, low population densities obviated all the proposed biological or cultural reasons for warfare and intraspecific conflict" (31).

Explanations for Altruism

Since human beings often do behave with apparent unselfishness and altruism, adherents to evolutionary psychology and Neo-Darwinism have devised a host of explanations to account for this behavior, whilst still maintaining that we are innately selfish. However, these explanations are as problematic as the assumptions about human prehistory (and human nature itself) which make them necessary.

It is true that, in genetic terms, it is not necessarily self-defeating for us to help people close to us, our relatives or distant cousins—they carry many of the same genes as us, and so helping them may help our genes to survive. As Dawkins has written, 'altruism at the level of the individual organism can be a means by which the underlying genes maximise their self interest.' (32) So what may appear to be self-sacrifice may actually mean perpetuating our own genes.

But what about when we help people to whom we are not closely genetically related, or even animals? A variety of different explanations to account for this have been suggested. Perhaps there is no such thing as "pure" altruism at all. When we help strangers (or animals), there must always be some benefit to us, even if we are not aware of it. Altruism makes us feel good about ourselves, it makes other people respect us more, or it might (so far as we believe) increase our chances of getting into heaven. Or perhaps altruism is an investment strategy: we do good deeds to others in the hope that they will return the favor some day, when we are in need. (In other words, reciprocal altruism.) It could even be a way of demonstrating our resources, showing how wealthy or able we are, so that we become more attractive to the opposite sex and so have enhanced reproductive possibilities.

Obviously these reasons apply sometimes. Many acts of kindness may be primarily — or just partly—motivated by self-interest. But pure altruism surely exists as well - a simple, direct desire to alleviate the suffering of other human beings or other living beings, based on our ability to empathise with them. An act of "pure" altruism may make a person feel better about themselves afterwards, and it may increase other people's respect for them, or increase their chances of being helped in return at a later point. But it is possible that, at the very moment when the act takes place, their only motivation is an impulsive unselfish desire to alleviate suffering.

Empathy and Panspiritism

In my view, pure altruism is rooted in empathy. Empathy is sometimes described as the ability to see things from another person's perspective, but in its deepest sense, empathy is the ability to *feel* - not just to imagine - what others are experiencing. It is the ability to actually enter the mind space of another person (or being) so that you can sense their feelings and emotions. In this way, empathy can be seen as the source of compassion and altruism. Empathy creates a connection that enables us to feel compassion. We can sense the suffering of others and this gives rise to to an impulse to alleviate their suffering - which in turn gives rise to altruistic acts. Because we can *feel with* other people, we are motivated to help them when they are in need. As Batson and Shaw have suggested - while putting forward an "empathy-altruism" hypothesis similar to my own formulation - "Feeling empathy for [a] person in need evokes motivation to help [that person] in which these benefits to self are not the ultimate goal of helping; they are unintended consequences." (33)

In order to understand altruism, therefore, we need to understand empathy. The source of empathy will also presumably be the source of altruism. In recent works, I have advocated a philosophical approach termed "panspiritism" (34). Panspiritism suggests that there is a fundamental non-material quality (which might called fundamental consciousness or spirit) inherent in all space and all matter. David Chalmers (35) has suggested that consciousness is an irreducible quality with a similar status to fundamental features like gravity and electromagnetism, which are not caused or produced by anything. But according to panspiritism, consciousness may be even more fundamental than gravity or electromagnetism, because it precedes the formation of the universe. The universe - with all of its material particles and forces and laws - can be seen as an expression of fundamental consciousness.

From the panspiritist perspective, the brain does not produce consciousness, but acts a kind of receiver which transmits and canalises fundamental consciousness into our own being. Via the brain (not just the human brain, but that of every other animal), the raw essence of

fundamental consciousness is canalised into our own individual consciousness. And because the human brain is so large and complex, it is able to receive and canalise consciousness in a very intense and intricate way, so that we are (probably) more intensely and expansively conscious than most other animals.

From this perspective, altruism does not need to explained away, but can been seen as a

natural consequence of the fundamental interconnectedness of human beings. Empathy creates an intersubjective connection which enables us to feel compassion for the sufferings of others. This gives rise to impulse to alleviate their suffering, which in turn gives rise to altruistic acts. Empathy itself empathy stems from the fundamental interconnectedness of human beings. At some deep level, we are expressions of the same fundamental consciousness.

In terms of altruism, the essential point is that we share this fundamental consciousness. This makes it possible for us to identify with other people, to sense their suffering and respond to it with altruistic acts. It actually makes it possible for us to identity with - and feel with - all other living beings, which is why can empathise with members of different species. Because of this common identity, we feel the urge to alleviate other people's suffering - and to protect and promote their well-being —just as we would our own. But presumably because of closer contact and our common mental features and shared environmental experiences, we feel the strongest empathic connection to other human beings.

Conclusion

We have seen that there are sound evolutionary reasons for rejecting the notion that human beings are essentially selfish, and accepting the contrary notion that we have a powerful innate disposition towards altruism and cooperation. But just as importantly, there are also sound *philosophical* reasons for accepting this, as I have described in the preceding section.

The myth of essential selfishness is based on an assumption of *separateness.* That is, it is based on the notion of that the world consists of separate units, beginning with atoms, and stretching all the way up to complex living organisms such as human beings. This "building block" model of the world is one of the fundamental principles of materialism. Human beings are autonomous, independent entities, with a consciousness or mind which is produced by our brains and enclosed within our own skin, with our own individual needs and desires. We move through a world which is separate to us, and move amongst other living beings who are also separate to us, and with whom we compete to satisfy our individual needs and desires.

However, fundamental separateness is just an assumption. From the panspiritist perspective, all human beings (and all other living beings) experience a fundamental interconnectedness, since we are all expressions of the same fundamental consciousness. From this perspective, there is no need to make excuses for altruism. Instead, we should celebrate it as a transcendence of seeming separateness. Rather than being aberrational, altruism is an expression of our most fundamental nature —that of oneness.

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